Activity 3: Fractions, Decimals, and Percents
(Draw all the lines, and fill-in all the blanks!)

Directions: Change each fraction into a decimal and a percent. Draw lines from the fractions to the correct decimal and then to the correct percents. Then, in the spaces below, write the letters from the decimal answer and the percent answer for each problem. The resulting message will be the answer to the riddle.

Fraction	Decimal	Percent
1. $\frac{5}{8}$	A. $.\overline{7}$	E. 40%
2. $\frac{9}{18}$	B. $.8\overline{3}$	F. 25%
3. $\frac{5}{6}$	C. $.\overline{5}$	H. $66.\overline{6}\%$
4. $\frac{6}{9}$	E. .5	H. 62.5%
5. $\frac{7}{21}$	E. $.\overline{4}$	I. 55.5%
6. $\frac{2}{5}$	F. .65	G. 65%
7. $\frac{5}{4}$	F. .325	G. 32.5%
8. $\frac{8}{15}$	L. $.\overline{3}$	N. 17.8%
9. $\frac{7}{9}$	M. .178	O. $33.\overline{3}\%$
	N. .285	O. $83.\overline{3}\%$
	N. .16	O. 125%
	O. .25	P. $77.\overline{7}\%$
	T. .625	R. $53.\overline{3}\%$
	T. $.\overline{6}$	S. 1.78%
	T. 1.25	S. 28.5%
	V. .4	T. 16%
	W. $.5\overline{3}$	Y. 50%

Question: What do some musicians and Christmas fanatics have in common?

T	H						
1. *decimal*	1. *percent*	2. *decimal*	2. *percent*	3. *decimal*	3. *percent*	4. *decimal*	4. *percent*
5. *decimal*	5. *percent*	6. *decimal*	6. *percent*	7. *decimal*	7. *percent*		
( )			!				
8. *decimal*	8. *percent*	9. *decimal*	9. *percent*				

❑ Changing Decimals to Fractions to Percents

Whether a number is in the form of a decimal, fraction, or percent, it can always be converted into one or both of the other forms.

From decimal to fraction—Understanding place value after the decimal is the key to changing decimals to fractions.

1	.01	.001	.0001	.00001
10th	100th	1000th	10,000th	100,000th etc. . . .

Examples:

$.9 = {}^{9}/_{10}$ $.91 = {}^{91}/_{100}$ $1.903 = 1\ {}^{903}/_{1000}$

From fraction to decimal—If your fraction is in the form of 10th, 100th, 1000th, etc., the change from fraction to decimal is just the opposite from the examples above. Otherwise, for any fraction, simply use division to determine what is the decimal equivalent.

Examples:

$\frac{2}{5} = .4$

$$5\overline{)2.0} \quad 0.4$$
$$-20$$
$$0$$

$\frac{3}{4} = .75$

$$4\overline{)3.00} \quad 0.75$$
$$-28$$
$$20$$
$$-20$$
$$0$$

From decimal to percent—A decimal is a percent when multiplied by 100. Therefore, by moving the decimal two places to the right (which is what happens when multiplying by 100), a decimal is made into a percent.

Examples: .63 = 63% .6 = 60% .06 = 6%

From percent to decimal—A percent is a decimal when divided by 100. Therefore, by moving the decimal two places to the left (which is what happens when dividing by 100), a percent is made into a decimal.

Examples: 72% = .72 12.6% = .126 2% = .02